

Claims

1. Implantable heart stimulator comprising a heart signal detection means adapted to detect electrical heart signals and to apply said signals to at least two detection channels (16,16',16''), each channel comprises a filter means (28) with a predetermined filter characteristic, a threshold detector (32) with a predetermined threshold (36) and a peak amplitude determining means (34), wherein said filter means generates a filtered signal (30) that is applied to said threshold detector that generates a detection signal (18,18',18'') if said filtered signal exceeds said threshold and to said peak amplitude determining means that generates a peak amplitude value (20,20',20'') of said filtered signal **characterized in** that said heart stimulator further comprises a heart event identifying means (22) that unequivocally identifies, based on detection signals and peak amplitude values from different detection channels, a detected heart event.
2. Implantable heart stimulator according to claim 1 **characterized in** that said channels are continuously active.
3. Implantable heart stimulator according to any preceding claim **characterized in** that said identification is performed by applying predetermined heart event identifying criteria.
4. Implantable heart stimulator according to claim 3 **characterized in** that said identifying criteria include forming the quote and/or the difference between peak amplitude values provided that at least one detection signal is received by the heart event identifying means.
5. Implantable heart stimulator according to any preceding claim **characterized in** that said predetermined filter characteristics for filter means in different detection channels are tuned to be sensitive to R-waves, T-waves and

PVCs, respectively.

6. Implantable heart stimulator according to any of claims 1-4 **characterized in** that said predetermined filter characteristics for filter means in different detection channels are tuned to be sensitive to P-waves and far-field R-waves, respectively.
7. Implantable heart stimulator according to any preceding claim **characterized in** that said heart event identifying means comprises tuning means adapted to tune said filter means.
8. Implantable heart stimulator according to any preceding claim **characterized in** that said detected heart event could be any of the following: an R-wave, a T-wave, a PVC, a P-wave or a far-field R-wave.